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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/905,440 | 07/13/2001 | Naoki Watanabe | 36992.00081 | 5821 |

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| EXAMINER |
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TRAN, NGHI V

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| ART UNIT | PAPER NUMBER |
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2151

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/905,440

Applicant(s)

WATANABE ET AL.

Examiner

Nghi V. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-9 and 20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1, 9, and 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The Examiner cannot find a proper support "at least one subsequent remote copy operation" in the specification.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wahl et al., U.S. Patent No. 6,324,654 (hereinafter Wahl), in view of Yanai et al., U.S. Patent No. 6,173,377 (hereinafter Yanai).

5. With respect to claims 1, 9, and 20, Wahl teaches a method of performing an initial copy procedure in a remote copy system [see abstract and figs.1&5], the method comprising:

- configuring a network path between a first disk subsystem [i.e. primary system] and a second disk subsystem [i.e. secondary system] to increase the speed of data transmission [i.e. allow network bandwidth to be added to a network connection] across the network path [col.25, Ins.1-10; and fig.1];
- configuring the remote copy system for a remote copy operation [figure 1; and see abstract];
- performing an initial remote copy operation to copy data across the network path from the first disk subsystem to the second disk subsystem [column 4, lines 14-33]; and
- thereby reducing the speed of at least one subsequent remote copy operation [i.e. slow down data transfer] between the first disk system and the second disk system [col.16, Ins.17-63].

However, Yanai is silent on adjusting the network path to reduce the speed of data transmission across the network path.

In a method of performing I/O system, Yanai disclose adjusting the network path to reduce the speed of data transmission [i.e. link traffic can also be reduced] across the network path [col.3, ln.31 - col.4, ln.33].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Wahl in view of Yanai by adjusting the network path to reduce the speed of the data transmission across the network path because this feature obsolete write pending data need not be transmitted over the link [Yanai, col.4, Ins.13-24]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated to modify Wahl in view of Yanai in order to avoid of losing data when a sequence of data corresponding to the number of items registered at the queue are sent and received [Yanaka, col.2, Ins.28-30].

6. With respect to claim 2, Wahl further teaches the first disk subsystem is located in a master site [figure 1].

7. With respect to claim 3, Wahl further teaches the first disk subsystem is located in a manufacturer site [figure 1].

8. With respect to claim 4, Wahl further teaches deploying the second disk subsystem to a remote site [figure 1].

9. With respect to claim 5, Wahl further teaches the configuring the remote copy system comprises: selecting multiple physical paths in the network path to transmit data across the path [column 24, line 44 through column 24, line 10].

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10. With respect to claim 6, Wahl further teaches the configuring the remote copy system comprises: increasing a data transfer rate characteristic of the network path [column 3, lines 39-44].

11. With respect to claim 7, Wahl fails to teach reducing the number of physical paths.

In performing a copy method, Yanai discloses adjusting the network path comprises: reducing the number of physical paths [i.e. link traffic can also be reduced] in the network path for transmitting data [col.3, ln.31 - col.4, ln.33 and col.12, ln.16 - col.13, ln.57].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Wahl in view of Yanai by reducing the number of physical paths because this feature obsolete write pending data need not be transmitted over the link [Yanai, col.4, lns.13-24]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated to modify Wahl in view of Yanai in order to avoid of losing data when a sequence of data corresponding to the number of items registered at the queue are sent and received [Yanaka, col.2, lns.28-30].

12. With respect to claim 8, Wahl further teaches decreasing the data transfer rate [col.16, lns.17-63 i.e. slow down data transfer].

Response to Arguments

13. Applicant's arguments with respect to claims 1-9 and 20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. "Data mirroring method and information processing system for mirroring data," by Yanaka, U.S. Patent No. 6,467,034.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi V Tran whose telephone number is (571) 272-4067. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571) 272-3939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nghi V Tran
Examiner
Art Unit 2151

NT


ZARNI MAUNG
SUPERVISORY PATENT EXAMINER